ENGINEERS AUSTRALIA

Western Australia Division

CEREMONY REPORT

PERTH'S FIRST PUBLIC WATER SUPPLY SCHEME

Heritage Recognition Ceremony

Perth, Western Australia, 22 October, 2012

CONTENTS

Cover Photo – Victoria Dam, completed 1891
(Photo: Water Corporation)

1. Introduction

The first European settlers who came to Perth in 1829 relied on swamps, lakes, rainwater tanks and a few freshwater springs for their water supplies.

Early colonists also used wells in Perth and Fremantle. When population started to rapidly increase in the late 1800s due to the gold rushes, summer water shortages and pollution in the wells resulted in disease such as typhoid, and the need for a safe public water supply became urgent.

As there was disagreement between the Town Councils and the Colonial Government about responsibility for public water supply, a number of private proposals were developed by entrepreneurs in the community. One of these proposals, based on a dam on Munday Brook in the "hills", was prepared by Perth civil engineers Henry John Saunders and James Barratt in May 1887. Following the Government's rejection of funding assistance in August 1889, Perth City Council awarded a build, own and operate contract to a Melbourne contractor Neil McNeil and Co on 21 October 1889. Neil McNeil and Co was represented in Perth by Edward Keane and their successful tender was based on the proposal prepared by Saunders and Barratt.

Saunders and Barratt's proposed water supply scheme included a new source of 140,000,000 gallons storage located in the Darling Range east of Perth, 16¾ miles of 12 inch trunk main, a 1,260,000 gallon service reservoir at Mt Eliza and city reticulation. Site clearing commenced in October 1889 and the site was ready by the time cement and pipes started to arrive four months later from England. When Victoria Reservoir was opened on 1 October 1891, the rapidly growing State's population was less than 50,000 and Perth's first public water supply scheme was a major undertaking.

After 99 years of service, a portion of the original Victoria Reservoir wall was demolished and a new Victoria Dam built 300 metres upstream. The original dam is accessible by public walk trails and traces of the original cast iron gravity trunk main, such as concrete pipe supports, still exist. The service reservoir at Mt Eliza has been replaced with significantly larger reservoirs, but the site is still a key operational site supplying the City of Perth today.

Perth's first public water supply scheme is significant in that it allowed Perth to grow in response to the State's gold rush and was the predecessor for the major Coolgardie Goldfields Water Supply Scheme.

Engineering and construction of the scheme was "best practice" and was the model used for many of Perth's subsequent "hills" water supply sources. Management of the scheme was controversial due to unprecedented rapid growth in demand and deterioration in the quality of the water due to timber mill camps in the catchment, issues that are still relevant for water supply authorities today. In the end, the privately owned City of Perth Water Supply Company's 25 year contract was bought out early by Government. The first of many subsequent public boards of management was appointed on 5 October 1896.

The Scheme (see Figure 1) was awarded an Engineering Heritage Marker in 2012 by Engineering Heritage Australia. The dedication ceremony took place at the John Tonkin Water Centre, 629 Newcastle Street, Leederville on Monday, October 22, 2012.

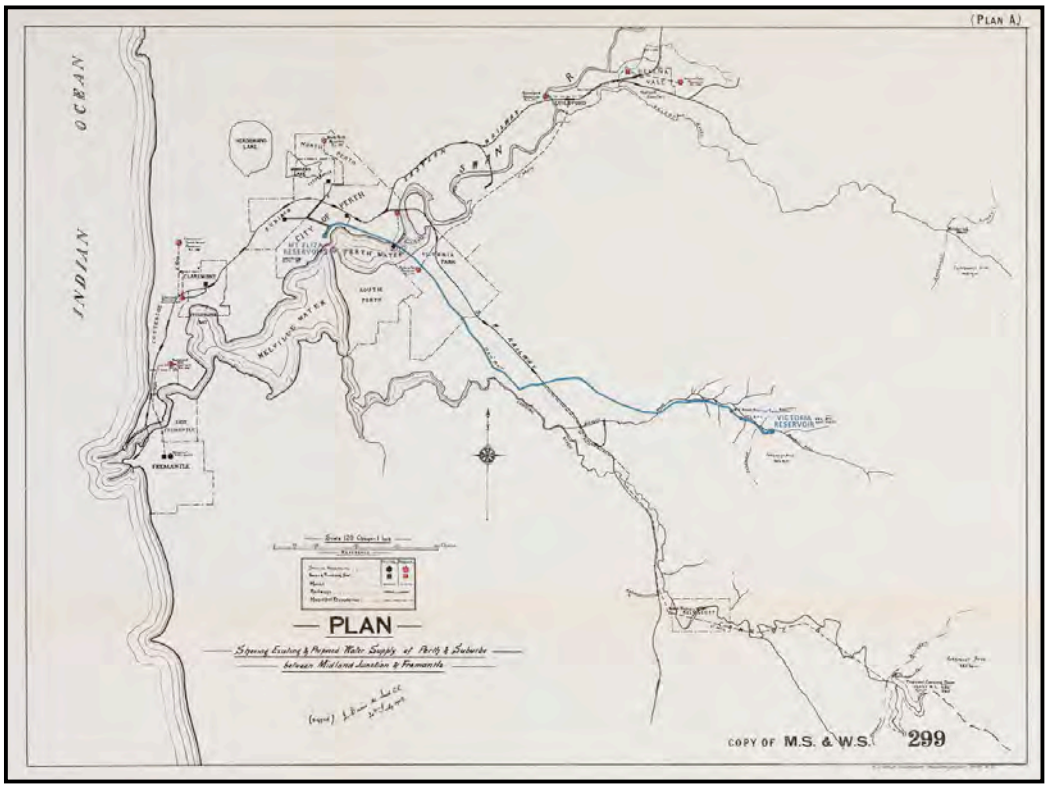


Figure 1. General Features of the Scheme. Details from a map drawn in 1903. (Scheme highlighted in blue 2012)

The setting for the ceremony was the new historical display on the Scheme that had been prepared by the Water Corporation and which is located on the third floor of the John Tonkin Water Centre. A picture of the historical display (Figure 2) is below.

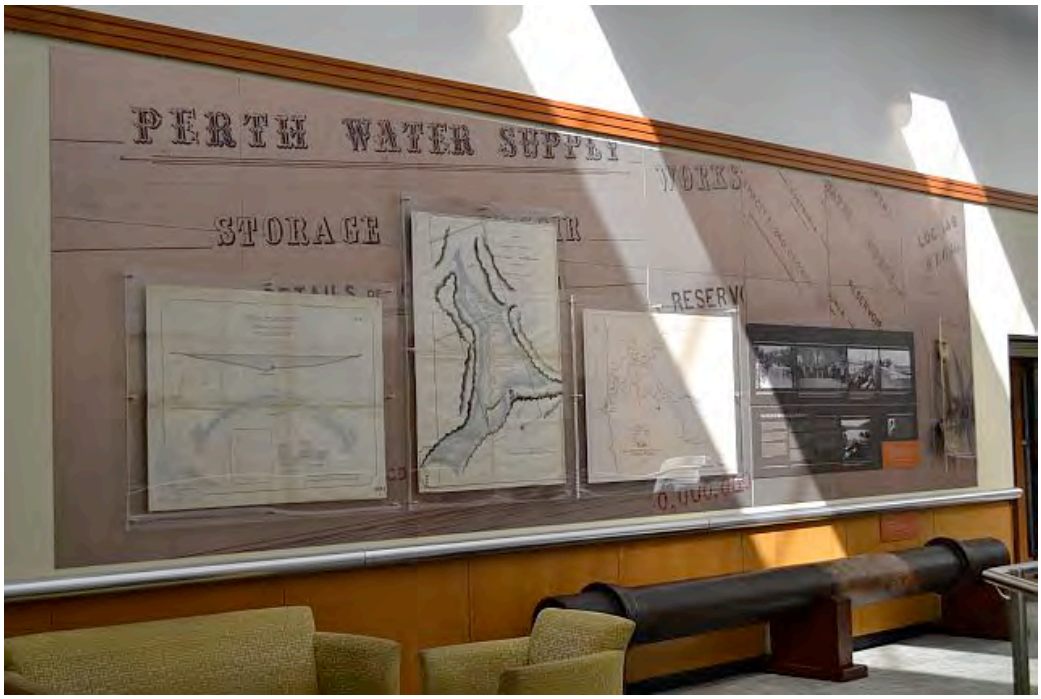


Figure 2. Historical Display of the Scheme. Level 3, John Tonkin Water Centre, 629 Newcastle Street, Leederville. (Photo: Terry Murphy, Water Corporation)

2. Ceremony and Distinguished Guests

The dedication ceremony was organized by the Water Corporation. The invitation list included the then Minister for Water, Hon Bill Marmion MLA, Water Corporation Board members, the Corporation's Chief Executive Officer Mrs. Sue Murphy, the Chief Operating Officer Mr. Peter Moore and Corporation General Managers.

Also attending was the Director of Planning and Development for the City of Perth Mr. Martin Mileham (representing the Perth Lord Mayor Cr Lisa Scaffidi) as well as representatives from the National Trust of Australia and the Australian Water Association. Special guests were Mr. Mark Saunders, grandson of the Scheme designer H J Saunders, and Ms. Victoria O'Connor, great granddaughter of Mrs Lilla Keane, the wife of the Mayor of Perth who turned on the original scheme on 1 October, 1891.

Attending on behalf of Engineers Australia was Prof Mark Bush, Chairman Engineering Heritage WA, Ms Leanne Hardwicke, Executive Director and members of Engineering Heritage Western Australia (EHWA).

The full list of invitees is included in Appendix 1. The Marker was mounted on a temporary stand for the ceremony and later installed at a permanent location on the original Victoria Dam wall.

3. Program and Speeches

The master of ceremonies was the Water Corporation Chief Executive Officer Mrs. Sue Murphy. Speeches were given by the Minister for Water, Hon Bill Marmion MLA, Mr. Martin Mileham (representing the City of Perth) and EHWA Chair, Prof Mark Bush.

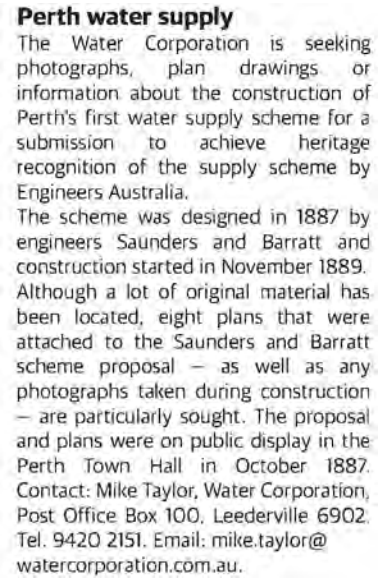
The speech notes are included in Appendix 2.

4. Ceremony Brochure

To provide a ceremony brochure, the nomination document was updated to reflect the awarding of an Engineering Heritage marker and was distributed to all attendees. A copy is available from the EHWA website at:
http://www.engineersaustralia.org.au/sites/default/files/shado/Divisions/Western%20Australia%20Division/Groups/Heritage/perths_first_water_supply.pdf

5. Media Articles

While undertaking research for the nomination, an item was arranged in the "CAN YOU HELP?" section of the West Australian of 28 May 2012 on page 28. A copy of the item as printed in the West Australian is below.



Perth water supply

The Water Corporation is seeking photographs, plan drawings or information about the construction of Perth's first water supply scheme for a submission to achieve heritage recognition of the supply scheme by Engineers Australia.

The scheme was designed in 1887 by engineers Saunders and Barratt and construction started in November 1889. Although a lot of original material has been located, eight plans that were attached to the Saunders and Barratt scheme proposal – as well as any photographs taken during construction – are particularly sought. The proposal and plans were on public display in the Perth Town Hall in October 1887. Contact: Mike Taylor, Water Corporation, Post Office Box 100, Leederville 6902. Tel. 9420 2151. Email: mike.taylor@watercorporation.com.au.

While there were a number of responses to this article, neither the original plans nor any photographs taken during construction could be located.

A media release was prepared by the Water Corporation and an item was published on Engineers Australia web site and in the December 2012 issue of WAWATER, the newsletter distributed by the Western Australian Branch of the Australian Water Association (AWA). Copies of these two items can be viewed in Appendix 3.

6. Costing

Drafting of the nomination document was completed by a working group of Water Corporation employees who undertook research and drafting activities as part of their normal work activities. Design and printing of the nomination document and design of the interpretation panels were completed by Turner Design of 307 Murray Street, Perth (attention Mr Tim Ewers). All costs associated with the working group, Turner Design and the dedication ceremony were met directly by the Water Corporation and are not known.

Costs associated with the manufacture and installation of the interpretation panels were as follows:

Item	**Cost (incl GST)**	**Source of funding**
Victoria Dam panel manufacture	$1,771	Water Corporation
Kings Park panel manufacture	$2,079	Water Corporation
Wall mounting, Victoria Dam panel	$ 248	Water Corporation
Frame, Kings Park panel	$1,029	Water Corporation
Delivery to Kings Park	$ 110	Water Corporation
Delivery to Victoria Dam depot	$ 55	Water Corporation
Installation of Kings Park panel	$ 500 estimate	Botanical Gardens & Parks Authority
Installation of Victoria Dam panel	$ 500 estimate	Water Corporation
Supply of marker for Victoria Dam	$ 200 estimate	Engineering Heritage Australia
TOTAL COST (known amounts)	$6,492	

7. Interpretation Panel and Marker Disc

The interpretation panel designs are shown in Appendices 4 and 5. While the Victoria Dam panel which is on Water Corporation property conforms to EHA specifications, the Kings Park panel was required to conform to Botanical Gardens and Parks Authority (BG&PA) requirements. A copy of the letter dated 9 August 2012 from the BG&PA giving approval to install an interpretation panel in Kings Park is attached at Appendix 6.

The Kings Park panel is vitreous glass enamel, 1700 mm wide and 600 mm high. It is mounted in a 50x50x1.6 mm galvanised steel frame with rolled bottom bar to suit the sign curve. Frame is powder coated in Black Onyx as specified by the BG&PA. The panel is located adjacent to a pedestrian path in a prominent location opposite Fraser's Restaurant with the current Mount Eliza reservoirs in the background (Figure 6).

The Victoria Dam panel is vitreous glass enamel, 1200 mm wide and 600 mm high. The panel is mounted vertically in a stainless steel frame on the upstream wall of the original Victoria Dam (Figure 7). The location is adjacent to a pedestrian path and is one of the viewing areas for the new Victoria Dam which is 300 metres upstream.

8. Photographs

Figure 3. Engineering Heritage Marker being unveiled by Hon. Bill Marmion MLA (Minister for Water), Professor Mark Bush (EHWA Chair) and Mrs. Sue Murphy (Chief Executive Officer, Water Corporation) (Photo: Lloyd Margetts)

Figure 4. Hon. Bill Marmion MLA (Minister for Water) with Mr. Mark Saunders, grandson of the Scheme designer H J Saunders and Ms. Victoria O'Connor, great granddaughter of Mrs Lilla Keane, the wife of the Mayor of Perth who turned on the original scheme on 1 October, 1891, and Mrs. Sue Murphy (Chief Executive Officer, Water Corporation) (Photo: Lloyd Margetts)

Figure 5. Section of original 12 inch diameter cast iron pipe with lead filled joints imported from England in 1890 and recovered from Kings Park in September 2012. (Photo: Lloyd Margetts)

Figure 6. Kings Park Interpretation Panel installed alongside path and opposite Fraser's with the current water reservoirs in the background. (Photo: Mike Taylor)

Figure 7. Heritage Marker and Victoria Dam Interpretation Panel installed on the back of the original Victoria Dam wall along with a Water Corporation information panel and a 100 year commemoration plaque from 1991. (Photo: Mike Taylor)

Figure 8. Heritage Marker mounted on a steel plate that is then bolted to the back of the original Victoria Dam wall. (Photo: Mike Taylor)

Figure 9. Original Victoria Dam wall in the foreground with modern day Perth City in the background. (Photo: Mike Taylor)

APPENDIX 1 – List of Invitees

Title	First Name	Last Name	Role	Organisation
Hon	William (Bill)	Marmion, MLA	Minister for Water	Member of Parliament (WA)
Mr	Colin	Edwards	Chief of Staff	Office of Minister for Water
Ms	Emma	Rose	Policy Officer - Water	Office of Minister for Water
Dr	Brian	Hewitt	Board Member - Deputy Chair	Water Corporation - Board
Mr	Andrew	Bantock	Board Member	Water Corporation - Board
Mrs	Karen	Field	Board Member	Water Corporation - Board
Prof	Robert	Harvey	Board Member	Water Corporation - Board
Mr	Michael	Hollett	Board Member	Water Corporation - Board
Mrs	Sue	Murphy	Chief Executive Officer	Water Corporation
Mr	Peter	Moore	Chief Operating Officer	Water Corporation
Mr	Ross	Hughes	Chief Financial Officer	Water Corporation
Mr	Keith	Cadee	GM Acquisition	Water Corporation
Mr	Graham	Cargeeg	GM Metro Customer Services	Water Corporation
Mr	Paul	Ferguson	GM Planning & Capability	Water Corporation
Ms	Catherine	Ferrari	GM Communications	Water Corporation
Dr	David	Luketina	GM Business Services	Water Corporation
Mr	Ashley	Vincent	GM Reginal Customer Services	Water Corporation
Mr	Mark	Leathersich	BM Infrastructure Planning	Water Corporation
Mr	Brian	Robertson	BM Capital Investment	Water Corporation
Mr	Perry	Beor	Engineering Services Mgr	Water Corporation
Ms	Karen	McGregor	DMS Manager	Water Corporation
Mr	Peter	Minson	Surface Water Ops Mgr	Water Corporation
Mr	Tony	Moulds		Water Corporation
Mr	Terry	Murphy	Communications Officer	Water Corporation
Mr	Michael	Somerford	Principal Engineer	Water Corporation
Mr	John	Steyntjes	Stakeholder Coordinator	Water Corporation
Cr	Lisa	Scaffidi	Lord Mayor	City of Perth
Mr	Martin	Mileham	Director, Planning & Dev	City of Perth
Mr	Lewis	Bond		City of Perth
Mr	Tom	Perrigo	Chief Executive Officer	National Trust of Australia (WA)
	Anne	Brake	Manager Interpretation	National Trust of Australia (WA)
Mr	Graeme	Gammie	Executive Director	State Heritage Office
Ms	Helen	Ross	Secretary	Pickering Brook Heritage Group
Ms	Beverley	Giumelli	President	Pickering Brook Heritage Group
Ms	Susan	Hunt	Researcher 1977 - 1980	Chief Executive Officer, Perth Zoo
Mr	Denis	Ericson	WA President	Australian Water Association (WA)
Mr	Mark	Webb	Chief Executive Officer	Botanic Gardens and Parks Authority
Ms	Jaqui	Kenendy		Botanic Gardens and Parks Authority
Mr	Grady	Brand	Curator	Botanic Gardens and Parks Authority
Mr	Barry	Tonkin	WA Division President	Engineers Australia
Ms	Leanne	Hardwicke	Divisional Director	Engineers Australia
Prof	Mark	Bush	Chairman EHWA	Engineers Australia
Mr	Doug	Ayre	Engineering Heritage WA	Engineers Australia

Dr	Richard	Hartley	Engineering Heritage WA	Engineers Australia
Mr	Bruce	James	Engineering Heritage WA	Engineers Australia
Mr	Ian	Maitland	Engineering Heritage WA	Engineers Australia
Mr	Lloyd	Margetts	Engineering Heritage WA	Engineers Australia
Mr	Robert	Morrison	Engineering Heritage WA	Engineers Australia
Mr	Jim	Paton	Engineering Heritage WA	Engineers Australia
Mr	Mike	Taylor	Engineering Heritage WA	Engineers Australia
Mr	Don	Young	Engineering Heritage WA	Engineers Australia
Ms	Maree	De Lacey	Director General	Dept of Water
Mr	Greg	Davis	Executive Director	Dept of Water
Mr	Mark	Saunders	Grandson of H. J. Saunders	
Ms	Victoria	O'Connor	Great Granddaughter of N. McNeil	
Mr	Barry	Sanders	Former General Manager Water Sources	
Mr	Jim	Briggs	Descendants of original property owners near Victoria Dam	
Mrs	June	Briggs	Descendants of original property owners near Victoria Dam	
	June	Emmott	Descendants of original property owners near Victoria Dam	
	Derreck	Emmott	Descendants of original property owners near Victoria Dam	
Mr	Ray	Simpson	Descendants of original property owners near Victoria Dam	
Mrs	Margaret	Simpson	Descendants of original property owners near Victoria Dam	
Mr	Arthur	White	Descendants of original property owners near Victoria Dam	
Mr	Neil	White	Descendants of original property owners near Victoria Dam	
Mrs	Trisha	White	Descendants of original property owners near Victoria Dam	
Mr	Simon	Williams	Descendants of original property owners near Victoria Dam	

APPENDIX 2 – Speech Notes

Running Order and Speech Notes prepared for Mrs Sue Murphy

Event order of proceedings
Perth's First Public Water Supply Scheme
Engineering Heritage Recognition Award Ceremony
Monday, 22 October 2012

Times	Sequence
05.30 pm	Guests arrive at reception; receive name tags then escorted to event venue on level 3 in the foyer. Minister arrives – Sue to greet Minister on arrival
05.30 to 6pm	Coffee and tea served on arrival.
6.00 pm	Sue Murphy to welcome Minister for Water, Hon Bill Marmion MLA, and guests and provide background on the event and an overview of proceedings.
	Sue to Introduce first speaker, Minister, who will comment on the significance of the scheme to the history of Western Australia.
6.05 pm	Minister's address.
	Sue to thank Minister and introduce Mr Martin Mileham, Director of Planning & Development, City of Perth who will provide background on the origins of the original scheme
6.10 pm	Mr Martin Mileham's address
	Sue to thank Mr Mileham from the City of Perth and introduce Professor Mark Bush, Chairman Engineers Australia WA Heritage Committee who will recognise the people and organisations that pioneered the scheme
6.15 pm	Professor Bush's address.
6.20 pm	Sue to join the professor to unveil the award
6.25 pm	Sue to thank Engineers Australia, congratulate those involved and close the event.
6.30 to 7 pm	Drinks and light refreshments provided.

BACKGROUND INFORMATION FOR CEO'S SPEECH NOTES
ENGINEERING HERITAGE RECOGNITION AWARD, PERTH'S FIRST PUBLIC WATER SUPPLY SCHEME
John Tonkin Water Centre, 22 October 2012

Summary information

- The scheme is receiving an Engineering Heritage Marker from Engineers Australia - Engineering Heritage Australia.
- Former Water Corporation executive Mike Taylor was a key player behind this award. When Mike joined the Engineers Australia (WA) Heritage Committee, the committee conducted research on schemes worthy of recognition and identified this scheme as a significant one.
- Mike approached General Manager Communications Catherine Ferrari and a WC committee was formed to prepare the submission involving Mike, Perry Beor, Brian Robertson, Peter Minson, Terry Murphy and others.
- This team undertook extensive research and writing to create all elements of this project an unearthed a lot of interesting material, including the 1887 handwritten proposal by Saunders & Barratt, and dozens of recently digitalised newspaper reports of events at the time. Unfortunately, the original scheme drawings were not found, although, tantalisingly, photographs of them were.
- Earlier this month the Water Corporation received confirmation from Engineers Australia that the submission was successful and this event was scheduled to coincide with National Water Week.
- The ceremony includes speakers and community members whose ancestors (family and business) were involved in the original scheme.

Speakers and their key messages

Water Corporation CEO Sue Murphy (Master of ceremonies) to welcome guests, provide background on the award, the ceremony and introduce the following speakers:

- Minister for Environment; Water, Hon Bill Marmion to comment on the significance of the scheme to the history of Western Australia
- Mr Martin Mileham from the City of Perth to provide background on the origins of the original scheme
- Professor Mark Bush, Chairman Engineers Australia to recognise the people and organisations that pioneered the scheme and to present the award to the Water Corporation.

HON BILL MARMION MLA

MINISTER FOR WATER

Introduction

- Thank you Sue. (**Minister will be introduced by Water Corporation CEO, Sue Murphy**)
- It's a pleasure to be with you all this evening.
- Often, the efforts of people who have had a significant role in the development of Western Australia are forgotten as time goes by.
- That could apply to those who constructed Perth's first public water supply scheme. The scheme is now largely forgotten.
- It was overshadowed by bigger brothers such as the Goldfields water supply scheme, and it no longer operates, having been decommissioned 22 years ago.
- But in its day it was a major achievement for Perth, at the time a struggling European settlement of some sixty years.
- One of the reasons for its construction sounds familiar to us, 120 years on.
- Water shortages have always been a part of the lives of Western Australians. We are well on the way to finally drought-proofing Perth, thanks to new plans and technologies, principally desalination, and hopefully in the near future: groundwater replenishment.

Late 1800s

- But back in the late eighteen hundreds, the lack of rainfall, regular water shortages and absence of a public scheme hampered the city's development.
- The people struggled with rainwater tanks, shallow wells and two or three freshwater springs.
- Water had to be carted or carried, but unreliable supplies and inconvenience were the least of those peoples' problems.
- The city was plagued by fever and disease because the wells were polluted by poor drainage and crude sanitation systems in the sandy soil.
- There were many deaths, and an official medical report in 1883 noted an upsurge in typhoid and diphtheria.
- To make matters worse, new discoveries of gold led to a rush of fortune hunters, and water supplies were even more stressed.

Public scheme

- Following the report of a landmark Sanitation Commission and mounting public pressure, it was decided to go ahead with a public scheme supplied from a reservoir in the hills.
- The story of the planning, construction and operation of the scheme is one of great human endeavour in difficult circumstances.
- It is recounted briefly in the new display that has been mounted here, and is given broader treatment in a submission prepared for this heritage award.
- But things, as they say, are different now.
- We have the experience, the expertise, the financial systems and the technologies that make the planning and construction of such a project less arduous.

- But think: building a concrete dam, with a crest of two hundred and twenty metres and height of twenty-two metres, using entirely manual labour, shovels and hand rammers, and you begin to get the idea of what it was like in the old days.
- The hardship is graphically shown by an item in the display, a shovel used by one of up to sixty men who laboured at the site on any day.
- The shovel was exposed when the central section of the dam wall was demolished twenty-two years ago to make way for a new dam just upstream.
- How it got in the wall is a mystery, and will never be explained.
- But it is a humble symbol of the hard yakka that was endured by those unsung heroes who showed Perth the way in how to provide a healthy and reliable public water supply.
- The Victoria Reservoir scheme, although having major problems in its first few years, established the model for all schemes constructed since, piping fresh hills water to Kings Park and then out to the city dwellers.
- These schemes collectively allowed Perth to become the great, ever-growing city that it is today.

Conclusion

- On behalf of all of Western Australia's present water industry workers, I express my appreciation to Engineers Australia for conferring this award that recognises the efforts of their predecessors so long ago.
- Thank you.

PROFESSOR MARK BUSH

CHAIR, ENGINEERING HERITAGE WESTERN AUSTRALIA

Ladies and Gentlemen.

It is a pleasure to be able to join you here today during Water Week and to celebrate in particular the importance of the Victoria Dam and its associated infrastructure to the development of Perth, and to mark the occasion with the award of Heritage recognition by Engineering Heritage Australia, or EHA. My task is to tell you a bit about EHA and the heritage recognition programme.

EHA is a national committee of Engineers Australia, which has corresponding groups in each state or division, including one here known as Engineering Heritage Western Australia, which is the group that nominated this project for heritage recognition.

The EHA Heritage Recognition Program is now in its 28th Year, having commenced in 1984. Since that time, around 160 sites and projects have been recognised across the nation. The aim of the Program is to provide credit where it is due to people and objects that have improved the lives or wellbeing of Australians. The program helps to increase the public's understanding of engineering and engineers through appreciation of their outstanding achievements.

Engineering Heritage items are those that have been designed, constructed and operated by engineers or engineering technologists that are significant for historic, aesthetic, scientific or social reasons.

The sites recognised to date are located in every State and Territory and cover virtually all aspects of our engineering heritage including:

- Bridges, roads and railways
- Dams and Power Stations
- Pipelines & Pumping Stations
- Industrial Plants
- Ports and Harbour Works
- and many other categories of engineering achievement

By way of example, early this year EHWA conducted a ceremony to award heritage recognition to construction in the 1960s of the Standard Gauge Rail segment between Kalgoorlie and Perth, which completed the single gauge connection between the east and west coasts. A few months ago we conducted a ceremony in Carnarvon to recognise the role of the NASA space tracking station, and its staff, in supporting the NASA Gemini and Apollo missions of the 1960s and early 1970s, most particularly the Apollo moon landing missions. That ceremony was attended by Dr Buzz Aldrin, who was the pilot of the Apollo 11 lunar landing module, Eagle, and the second man by just a few minutes to set foot on the moon. Incidentally, he claims that mission commander Armstrong was the first out because he was closer to the door. I might add that that site was afforded EHA's first International heritage marker, signifying the international importance of the station, the first such award anywhere in Australia.

Just last month we are recognised the significant role that the Causeway Bridges played in the development of Perth, and today we are recognising another significant project in Perth's history, the Perth's First Public Water Supply, associated with the Victoria Dam. This is the 4th ceremony this year, which is half number of recognition ceremonies that the national body, EHA, sets as an annual target for the entire nation. So WA is leading the way this year. This is a credit to the hard work and dedication of my fellow members of the WA committee, who research and write the nominations.

The Victoria Dam project is an excellent example of the infrastructure that contributes enormously to the development of a city, yet often goes un-noticed by the general public. We hope that this award will help to remedy this situation by drawing attention to the structures both in the hills and at Mt Eliza, with an interpretation panels and a heritage marker disc located at each site.

The actual panels do not exist yet, but with the assistance of WaterCorp they will be designed, manufactured and erected in the coming months. The one at the Victoria Dam site will look a lot like the mock-up that will be unveiled in a moment.

The aim of Engineering Heritage Australia is to continue to play our part in keeping the history and recognition of these engineering achievements alive and in public view; and the ceremony this morning is an integral part of that process.

I would like to conclude by congratulating the Water Corporation on the occasion of this award, and thank them for the outstanding support provided during the nomination process, the design and production of the panels, and for allowing us to participate in this celebration.

Lastly I want to thank Mike Taylor, a member of EHWA and in fact its Secretary, who led the preparation of the nomination and panel design. I acknowledge his hard work and dedication.

Thank you.

APPENDIX 3 – Media Articles

Engineers Australia, Western Australian Division Newsletter, December 2012

Author Terry Murphy, Water Corporation

Heritage recognition for Perth's first water supply scheme

Perth's first public water supply scheme has received national engineering heritage recognition, 121 years after it first delivered water to the city from a reservoir in the hills.

The award was made by Engineering Heritage Australia at a ceremony at the Water Corporation's Leederville headquarters on 22 October.

The scheme was constructed in 1889-91 to end 62 years of reliance on rainwater tanks, lakes, swamps, shallow bores and a few fresh water springs since the British colony was established.

Poor water quality, resulting in a high rate of disease and deaths from water pollution, mainly caused by inadequate septic systems, as well as regular water shortages led to mounting public demands for a proper piped scheme.

When the city's population ballooned as a result of gold rushes, the Perth City Council decided to go ahead with a scheme, but due to a lack of public funding it entered into an agreement with a Melbourne company, Neil McNeil and Co., to fund, build and operate it.

The scheme cost about $21 million at today's values and incorporated a storage reservoir, a 26-kilometre pipeline of 305mm diameter to a service reservoir in Kings Park and initial reticulation in central city areas.

The Victoria Dam, built on Munday Brook, had a capacity of 1 billion litres, compared with the current total capacity of Perth's dams of 605 billion litres.

The dam had a crest of 222 metres and a maximum height of 25 metres. It was built of concrete that was mixed and compacted manually by up to 60 men at a time.

However, the scheme operator, the City of Perth Water Supply Co. Ltd., faced complaints about water availability and quality, pressure loss and high charges for water. To make matters worse, the reservoir catchment became contaminated by farming and timber mill activities, and the typhoid and other water-borne diseases that plagued Perth previously became even worse.

In 1896 the scheme was purchased by the newly formed State Government and operated by the independent Metropolitan Waterworks Board which made improvements.

The scheme, designed by Perth engineers Henry Saunders and James Barratt, became the model for future hills schemes that allowed Perth to grow.

The dam wall was partly demolished in 1990 to allow for overflows from a larger capacity dam built 300 metres upstream. Little else remains of other parts of the scheme.

Mr Mark Saunders, great-grandson of scheme designer Henry Saunders, and Ms Victoria O'Connor, great granddaughter of Mrs Lilla Keane, the wife of the Mayor of Perth who turned on the original scheme on 1 October, 1891, attended the heritage award ceremony at the John Tonkin Water Centre. Also attending were Water Minister Bill Marmion and representatives of the City of Perth, Engineers Australia and the Water Corporation.

Professor Mark Bush, Chair of Engineering Heritage WA, said: "The Victoria Dam project is an excellent example of the infrastructure that contributes enormously to the development of a city, yet often goes un-noticed by the public. Engineering Heritage Australia hopes that this award will help to remedy this situation."

Information panels about the scheme are being erected near the site of the first water service reservoir in Kings Park, and at the remaining wall section of the original Victoria Dam.

WAWATER, Western Australian Branch Newsletter, Australian Water Association (AWA), December 2012

Author Terry Murphy, Water Corporation

News

Heritage recognition for Perth's first water supply scheme

Perth's first public water supply scheme has received national engineering heritage recognition, 121 years after it first delivered water to the city from a reservoir in the hills at Carmel.

The award was made by Engineering Heritage Australia, the heritage arm of Engineers Australia, at a ceremony at the Water Corporation's Leederville headquarters.

The scheme was constructed in 1889-91 to end 62 years of reliance on rainwater tanks, lakes, swamps, shallow bores and a few fresh water springs since the British colony was established.

Poor water quality, resulting in a high rate of disease and deaths from water pollution, mainly caused by inadequate septic systems, as well as regular water shortages led to mounting public demands for a proper piped scheme.

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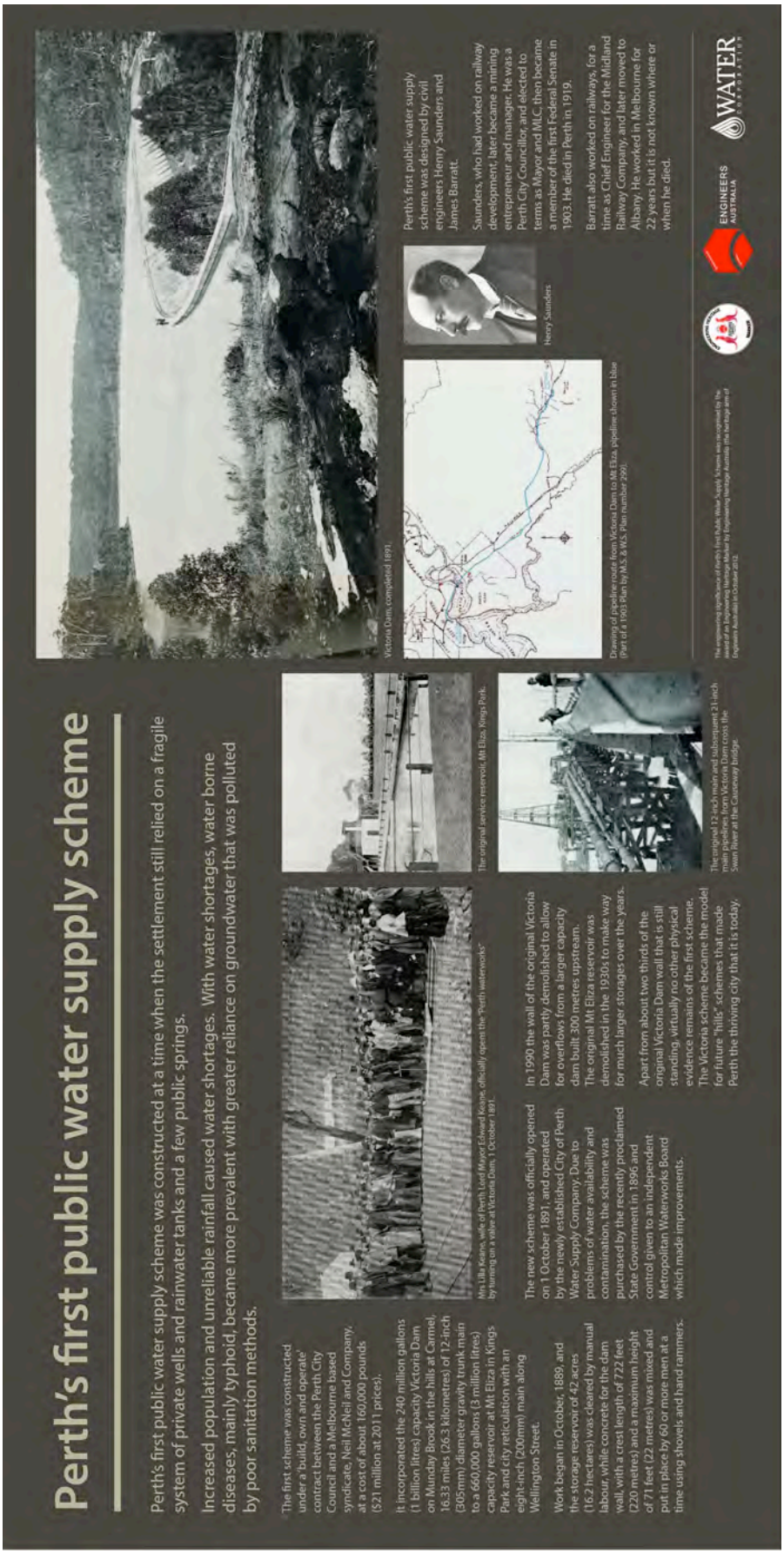
Information panels about the scheme are being erected near the site of the first water service reservoir in Kings Park, and at the remaining wall section of the original Victoria Dam.

A newly mounted display at the John Tonkin Water Centre includes a section of the original pipeline and a shovel used by a workman on construction of the dam wall.

APPENDIX 4 – Kings Park Interpretation Panel

APPENDIX 5 – Victoria Dam Interpretation Panel



APPENDIX 6 – Letter from Mr. Mark Webb, Chief Executive Officer, Botanic Gardens & Parks Authority dated 9 August 2012

BOTANIC GARDENS & PARKS AUTHORITY

KINGS PARK AND BOTANIC GARDEN • BOLD PARK

ABN 30 706 225 320

Reply To:
Author: Mark Webb 9480 3605
Location: Head Office
Your Ref:
Our Ref:
Email: mark.webb@bgpa.wa.gov.au

9 August 2012

Ms Catherine Ferrari
General Manager Communications
Water Corporation
PO Box 100
Leederville WA 6902

Dear Catherine

Perth's First Public Water Supply Scheme
Interpretation Panel for Engineering Heritage Awards

Thank you for your letter of 17 July 2012 seeking in principle support for the installation of an interpretation panel in Kings Park at the Mt Eliza reservoir site recognising the Engineering Heritage Awards for Perth's First Public Water Supply Scheme. I am pleased to advise that this is approved in principle as a welcome addition to interpret the reservoir, which has a significant presence in one of the highest profile areas in Kings Park and Botanic Garden.

To ensure a consistent presentation of interpretive information for visitors to Kings Park, it is requested that the style of the sign furniture and layout of the information is aligned with the current Botanic Gardens and Parks Authority (BGPA) signage style guide. I have attached a copy of a G1 style sign format from the BGPA style guide that is most commonly used for interpretation in Kings Park and is closest to the size you have proposed for your reference. The G1 style has two short posts and is angled at 45 degrees for easy viewing and is manufactured in a high quality and durable manner, with a powder coated steel frame. The text and images are printed on a high grade vinyl decal that resists fading and scratching. The layout of text and images could be undertaken by BGPA using required text and images to be supplied by the Water Corporation, with the final version to be agreed by both the BGPA and the Water Corporation. BGPA would then invoice Water Corporation for the sign design, manufacture and installation costs.

KINGS PARK AND BOTANIC GARDEN
Fraser Avenue, West Perth
Western Australia 6005
Telephone: (618) 9480 3600
Facsimile: (618) 9322 5064

BOLD PARK
165 Perry Lakes Drive, Floreat
Western Australia 6014
Telephone: (618) 9480 3990
Facsimile: (618) 9284 9802

Email: enquiries@bgpa.wa.gov.au
Internet: www.bgpa.wa.gov.au
www.wa.gov.au

In terms of best location for public viewing, the most obvious place would be in the garden bed near the main gates to the reservoir adjacent to Wadjuk Way where the path runs alongside the reservoir fence.

My suggestion is that your representatives Terry Murphy and/or Brian Robertson meet with BGPA representatives Grady Brand and Jacqui Kennedy in Kings Park to discuss the location, design and size of the interpretive panel. Jacqui Kennedy can elaborate further on the design process and Grady Brand can confirm most appropriate location. This meeting can be arranged through contacting Catherine Parry – phone 9480 3674 or via email catherine.parry@bgpa.wa.gov.au .

Thank you for your interest and continuing support of Kings Park and Botanic Garden. I look forward to seeing the new interpretive panel in place.

Yours sincerely

Mark Webb
CHIEF EXECUTIVE OFFICER

cc - Terry Murphy – email Terry.Murphy@watercorporation.com.au